

What is claim is:

1. A dry powder inhalation apparatus, comprising a reservoir for medicament, a mouthpiece for insertion in the mouth of a user for inhalation of a predetermined dose of medicament, a delivery channel between a discharge outlet of the reservoir and the mouthpiece for delivering said predetermined dose of medicament, a device normally held adjacent the reservoir for receiving said predetermined dose of medicament from said discharge outlet and transferring it to the delivery channel, and a mechanism adapted to release the device and permit controlled movement thereof to the delivery channel for said delivery.
2. The apparatus of claim 1, further comprising a cup for receiving the said dose and a longitudinally slidable body mounting said cup, the mechanism comprising abutment means which is movable to release the device for movement to the delivery channel.
3. The apparatus of claim 2, further comprising the abutment means being bodily movable by an actuation means.
4. The apparatus of claim 3, comprising a yoke member which is shiftable bodily towards and away from the mouthpiece, and mounting limbs one of which has a cam follower for following a cam which is rotatable for actuation of the yoke member which carries the actuation means in the form of a ramp up which a part at least of the device can travel for controlled movement thereof towards the delivery channel.
5. The apparatus of claim 4, the actuation means comprising an element for returning the device to the discharge outlet.
6. The apparatus of claim 5, the element comprising an inclined ledge down which the part travels to said charging position.
7. The apparatus of claim 6, wherein the yoke member comprises a lower (in use) cam which is resilient and has a surface profile.
8. The apparatus of claim 7, wherein the surface profile is convex in configuration.

9. The apparatus of claim 8, wherein the lower in use end of the yoke is adjacent the mouthpiece.
10. The apparatus according to any preceding claim, wherein the abutment means comprises a resilient member which is flexible out of the path of the device.
11. The apparatus of claim 10, wherein the resilient member comprises a one piece member of substantially J- or U-configuration one limb of which is movable for releasing the device.
12. The apparatus of claim 11, wherein the movable limb has a finger-operable tab projecting from a housing of the apparatus.
13. The apparatus of claim 12, wherein the tab has indicia indicating the direction of flexing of the limb for release of the device.
14. The apparatus of claim 3, wherein the actuation means comprises a resiliently mountable slidable member which has a tab projecting through a bore of a body of the apparatus for releasing the device.
15. The apparatus of claim 14, wherein the slidable member having indicia which can be read through the bore for indicating the position of the device.
16. The apparatus of claim 15, wherein the indicia comprises a colour code indicia.
17. The apparatus of claim 3, wherein the actuation means comprises a resiliently and pivotably mounted detent means which is shiftable bodily about its pivot axis to release the device.
18. The apparatus of claim 17, wherein the detent means has a finger grippable projection which projects there from and through a slot in the body of the apparatus for bodily shifting of the detent when the projection is moved along the slot.
19. The apparatus of claim 3, wherein the actuating means comprises a resiliently mounted plunger means which has one end projecting through a bore in a body of the device and an opposite end adapted to engage the device for shifting same bodily to said delivery channel.
20. The apparatus of claim 19, wherein the plunger means has a substantially cylindrical body member connecting the one end and the opposite end, the opposite end being enlarged relative to the body member.

21. The apparatus of claim 20, wherein there is a relatively soft cushion member of the opposite end for contacting the device.
22. The apparatus of claim 3, wherein the actuation means comprises an electrical, electronic or electro-mechanical means.
23. The apparatus of claim 22, wherein the actuation means comprises a solenoid means actuated by a switch device for actuation of the device.
24. The apparatus of claim 23, wherein the switch device is operable manually by a user.
25. The apparatus of claim 23, wherein the switch device is operable by inhalation of a breath by a user.
26. The apparatus according to any of Claims 22 to 25, further comprising a power source for the electrical, electronic or electro-mechanical means.
27. The apparatus according to any preceding claim, further comprising a cover for an end of the discharge channel at the mouthpiece, the cover being movable between a position covering the discharge channel and a position for discharging said dose, whereby to allow actuation of the mechanism.
28. The apparatus of claim 27, wherein the cover comprises a relatively rigid disc carried by opposed arms which at an end thereof opposite the disc mount a cam which has a profile for allowing movement of a cam follower in a direction away from the device whereby to allow operation of the actuation means for bodily movement of the abutment means.
29. The apparatus of claim 28, wherein the disc in its first mentioned position is housed within a guard of the apparatus, which guard is pivotably mounted for access to the disc.
30. The apparatus of claim 3, further comprising a breath actuatable apparatus.
31. The apparatus of claim 30, wherein the mechanism is between opposed spaced walls of the reservoir and has a member which is retractable on a user taking a breath on the mouthpiece.
32. The apparatus of claim 31, wherein the mechanism comprises cooperating rotatable means one of which has a detent for engaging the device and the other of which is

operable to maintain the detent in engagement with the device and to allow rotation of the one means to release the detent and device.

33. The apparatus of claim 32, wherein the mechanism further comprises a stop member retractable as a user takes a breath on the mouthpiece, and adapted to release the other rotatable means and the detent.
34. The apparatus of claim 33, wherein the rotatable means comprises cam or gear means.
35. The apparatus of claim 33 or 34, wherein the stop member comprises an elongate mounted member which is biased to engage the other rotatable means and a flap valve which is operable to allow air into a space between said opposed walls to equalise air pressure inside and outside the space and bias the elongate member to operate the cam or gear means.
36. The apparatus according to any preceding claim, wherein the device is mounted under pressure resilient means.
37. The apparatus of claim 36, wherein the pressure resilient means comprises spring means.
38. The apparatus according to any preceding claim, comprising a damper means for damping movement of the device.